

# Regional overview: East Asia and the Pacific



*Overall, East Asia and the Pacific<sup>1</sup> stands ahead of some other developing regions in terms of Education for All. Many countries have achieved universal primary education (UPE), but progress is uneven throughout the region and across the two subregions. Enrolment in pre-primary education remains too low to prepare the region's children adequately for later success in education. Some 9.5 million children are out of school and nearly 113 million adults in the region still do not enjoy the right to literacy. Learning achievement levels remain low by international standards and persistent inequalities are hindering progress towards the EFA goals at all levels: regional, national and subnational.*

*The EFA Global Monitoring Report 2009 finds that disparities based on wealth, location, gender and disability are denying millions of children a good-quality education. Focusing on those being left behind, the Report highlights current approaches to education governance reform. These approaches all too often fail the poor and disadvantaged. This regional overview for East Asia and the Pacific reveals that, while the region as a whole continues to advance on most EFA goals, wide disparities between and within countries are holding back overall progress.*

## EFA progress and challenges

### Early childhood care and education: a long way to go

The path towards EFA starts long before primary school. Adequate nutrition, good health and a language-rich home environment during the early years are vital for later success in education and in life. Yet millions of children in East Asia and the Pacific lack these advantages, suffering from poor health and low access to pre-school programmes.

Child mortality is one of the most sensitive barometers of the well-being of children under 5. It captures premature death and provides a view of the health and nutritional status of the next generation of primary school-age children. High levels of child mortality and malnutrition are not only a great development challenge in their own right, but also symptoms of wider problems

that directly affect education. Indicators of child well-being are much better for East Asia and the Pacific than for most developing regions, but some countries are lagging behind.

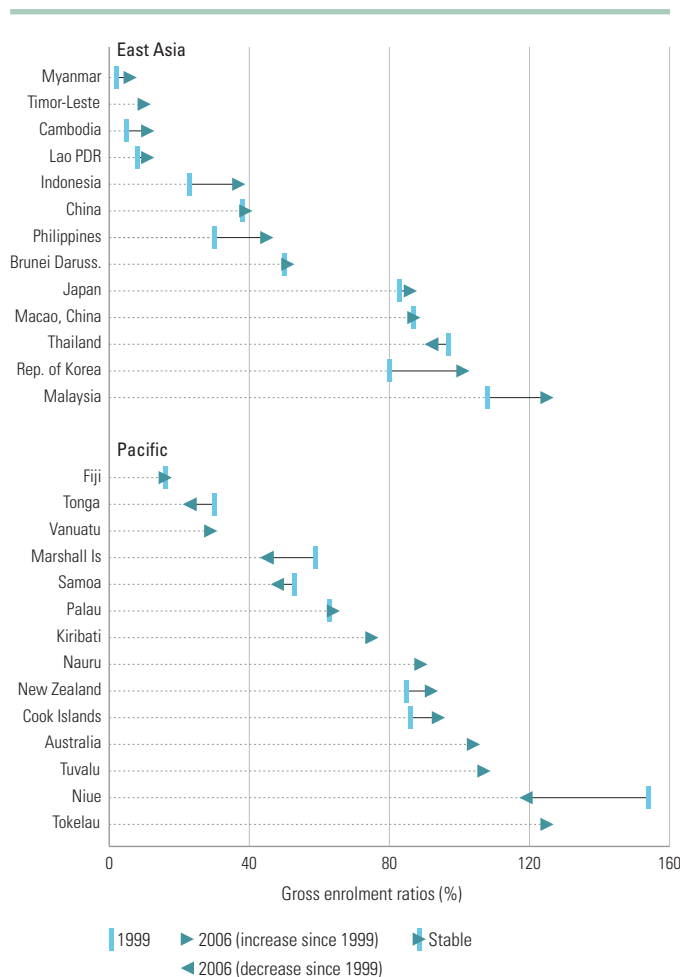
- The most recent estimates indicate that, on average, 31 of every 1,000 children born in the region will not reach age 5, a rate much lower than in developing countries (81‰). If the decline observed between 1990 and 2006 continues, East Asia and the Pacific will meet the Millennium Development Goal of cutting under-5 deaths by two-thirds by 2015.
- There are huge differences in the under-5 mortality rate among countries in the region, varying from 4‰ in Japan and Singapore to 97‰ in Myanmar. Four other countries are above the developing country average of 81‰: Cambodia, Papua New Guinea, Solomon Islands and Timor-Leste. Within countries, being poor or living in a rural area dramatically reduces the prospect of a child's surviving to the fifth birthday. In the Philippines and Viet Nam, rural children are at least twice as likely as urban children to die before their fifth birthday. In those two countries and in Indonesia, child death rates among the poorest 20% of households are more than three times those of the wealthiest 20%.

1. This is according to the EFA classification. See the table at the end for countries in the region and subregions.

In the Philippines, the rate of improvement for the poorest 20% fell far behind that for the richest. These disparities reflect underlying inequalities in nutrition, vulnerability and access to health services.

- Child malnutrition is relatively infrequent in the region, but remains an issue in several countries. In Cambodia, the Democratic People's Republic of Korea and the Lao People's Democratic Republic, about 40% of children under 5, or more, suffer from moderate or severe stunting. Results of malnutrition, such as iodine and iron deficiency, affect the physical and mental capacity, and are among the main reasons children perform poorly in school and fail to achieve their learning potential. Research in the Philippines found that malnourished children performed more poorly in school, partly as a result of delayed entry and resultant loss of learning time, and partly because of diminishing learning capacity.
- Institutional arrangements, capacity and service quality for children under 3 vary enormously. In most developed countries, provision includes regular health visits, immunization, nutritional advice and universal access to child care. In developing countries, interventions are usually far more limited and poorly coordinated. In East Asia and the Pacific, official ECCE programmes for children under 3 exist in thirteen of the nineteen countries with data.
- Exploiting the window of opportunity for combating malnutrition can deliver high returns. ECCE programmes in many countries make a powerful case for early intervention. For example, in the Philippines, a pilot child nutrition programme focused investment on a wide range of nutrition and preventive health interventions. For 2- and 3-year-olds, exposure to the programme for seventeen months was associated with significantly higher expressive and receptive language skills (0.92 to 1.80 standard deviations higher), as well as higher weight-for-height scores. Children under 4 also recorded significant lowering of worm infestation and diarrhoea incidence.
- Around 37 million children were enrolled in pre-primary education in East Asia and the Pacific in 2006, almost unchanged from 1999. This translated into a pre-primary gross enrolment ratio (GER) of 45% (44% in East Asia and 74% in the Pacific). Large differences in pre-primary participation were also observed among countries (Figure 1). While nine countries<sup>2</sup> had pre-primary GERs above 90% or even 100% in 2006, the participation level was much lower in Myanmar (6%), Timor-Leste (10%), Cambodia and the Lao People's Democratic Republic (11% each), and Fiji (16%). Most countries in the region improved their levels of pre-primary participation. Indonesia, the Philippines and the Republic of Korea experienced the largest increases, raising their pre-primary GER by more than fourteen percentage points between 1999 and 2006.

**Figure 1: Changes in pre-primary gross enrolment ratios between 1999 and 2006**



Good-quality ECCE provision can equip children with cognitive, behavioural and social skills that improve access, retention and learning outcomes in primary education. The interaction between children, carers and teachers is the key determinant of quality in ECCE programmes. International research also points to the importance of class or group size, the adult/child ratio, teacher quality, curriculum and the availability of learning materials.

- While ECCE provision in low-income countries is constrained by a lack of resources, it is further limited by government neglect – notably with respect to the poor. Indeed, there are marked disparities in pre-primary education provision within countries. Although vulnerable children from poor households stand to benefit most from early childhood programmes, international evidence indicates that they are least likely to have access to them. In Cambodia, a household survey showed that the availability of pre-school facilities increased the probability of successful school completion from 43% to 54% and the impact was strongest for children from remote rural areas and among the poorest 40%. Rural-urban gaps and other geographical disparities

2. Australia, the Cook Islands, Malaysia, New Zealand, Niue, the Republic of Korea, Thailand, Tokelau and Tuvalu.

are also marked in many countries. For example, Viet Nam's Red River delta region, with the country's highest average income, has a pre-primary attendance rate of 80%, compared with 40% for the Mekong River delta region, which has some of the worst social indicators. Factors such as language, ethnicity and religion also influence which households gain access to ECCE services.

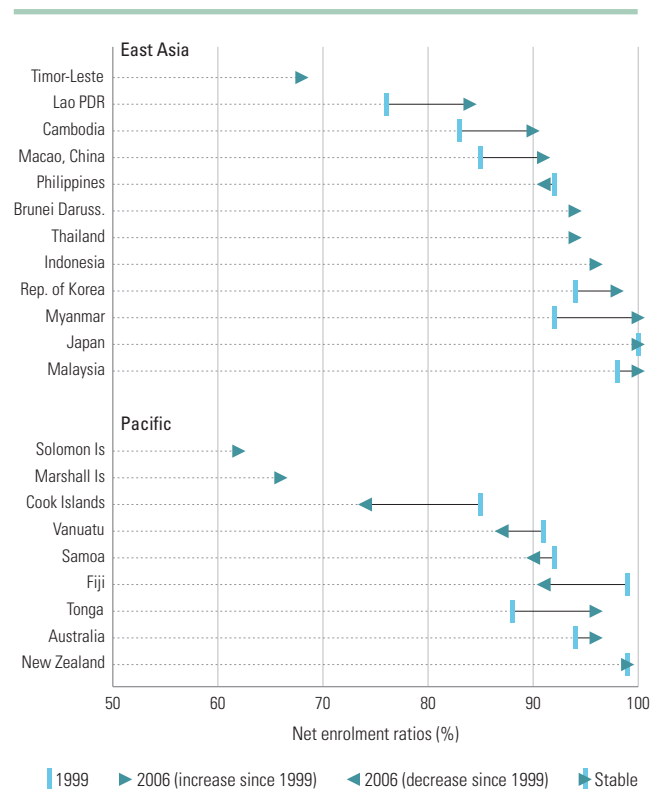
- While gender disparities are less marked in pre-primary education than at other levels, the need to enrol more girls remains a concern in China, which had a gender parity index (GPI) of 0.95 in 2006, and the Cook Islands, with a GPI of 0.90. On the other hand, many more girls than boys were enrolled in pre-primary education in several Pacific island countries (Niue, Palau, Samoa, Timor-Leste, Tonga and Tuvalu), whose GPIs were greater than 1.10.

### Universal primary education: nations at the crossroads

Despite high access and participation levels, millions of children are still out of school in East Asia and the Pacific. Getting children to complete the primary school cycle remains a formidable challenge in many countries.

- The region had about 5 million fewer children entering primary school in 2006 than in 1999. This translated into a decline of the average gross intake rate (GIR) from 103% to 98%, reflecting a combination of demographic change and a better match between school starting age and progression through the system in countries that started with high GIRs. Contraction of the primary school-age cohort creates an opportunity to increase per capita financing; East Asia and the Pacific will have some 15 million fewer children of primary school age in 2015.
- The net enrolment ratio (NER) is one of the most robust benchmarks for UPE. It shows the share of primary school-age children officially enrolled in school. Countries that consistently register NERs of around 97% or more have effectively achieved UPE: virtually all children of the appropriate age are in primary school and are likely to complete the cycle. For East Asia and the Pacific, the NER decreased from 96% in 1999 to 93% in 2006.
- Progress towards UPE is uneven within the region (the NER was 84% in the Pacific and 94% in East Asia in 2006) and across countries (Figure 2). While UPE was achieved in Japan, Malaysia, Myanmar, New Zealand and the Republic of Korea, participation remained relatively low in the Marshall Islands, Solomon Islands and Timor-Leste, with primary NERs below 70% in 2006. Most countries with data have improved their situation since 1999. Significant gains (by seven percentage points or more) occurred in Cambodia, the Lao People's Democratic Republic, Myanmar and Tonga. Meanwhile, NERs declined in some Pacific island states, such as the Cook Islands, Fiji and Vanuatu.

**Figure 2: Changes in primary net enrolment ratios between 1999 and 2006**



- East Asia and the Pacific accounted for nearly 13% of the world's out-of-school population in 2006 – equivalent to 9.5 million non-enrolled children, an increase of 3.5 million since 1999. These children are being deprived of the opportunity to get their feet on the first rung of a ladder that could give them the skills and knowledge to climb out of poverty and break the transmission of disadvantage across generations. Cambodia, Malaysia, Myanmar and the Republic of Korea made extraordinary progress in reducing the number of children not enrolled, but the number of out-of-school children increased in the Cook Islands, Fiji, the Philippines and Vanuatu. Projections indicated the Philippines was home to some 953 thousand children not in school in 2006 and thus risked not achieving UPE without a drastic change in policy (its estimated out-of-school population is expected to fall slightly to about 918 thousand by 2015).
- The circumstances and characteristics of out-of-school children vary. Evidence suggests that most out-of-school children in the region may eventually enrol late. That is particularly true for boys (88%, compared with 67% of out-of-school girls). The situation requires policy responses to address specific structures of disadvantage, especially to reach children in rural and impoverished areas. In 2006, 51% of out-of-school children in the region were boys, although in some countries, including Cambodia, Indonesia and the Lao People's Democratic Republic, the majority of 'missing' schoolchildren were girls.

### Progression through school: repetition, dropout, low survival rates

- Getting children into school is a necessary condition for achieving UPE, but not a sufficient one. What counts is completion of a full primary cycle. Though access to and participation in primary schooling are improving in many countries, high repetition and dropout rates mean millions of children fail to complete primary education. The median percentage of repeaters (for all grades) in East Asia and the Pacific was 1% in 2006. However, repetition levels greater than 10% were reported in Cambodia (13%), the Lao People's Democratic Republic (18%) and Vanuatu (11%). The end of grade 1 is a critical point in the two former countries, where 22% and 33% of students, respectively, repeated the first year of primary education. Under-age children are far more likely to repeat early grades – an outcome with important implications for class size and education quality. In Cambodia, for example, the repetition rate in grade 1 for under-age pupils is three times that of the overall repetition rate in that grade. Apart from its damaging consequences for UPE, grade repetition is a source of inefficiency and inequity. As the burden is heaviest for the poorest households, it is more likely to result in dropout.
- Late school entry and grade repetition mean only a small proportion of children actually attend the appropriate class for their age in many developing countries. Household survey data demonstrate that in Cambodia, for example, more than 60% of children in primary school are over the expected age for their grade. The presence of over-age children tends to increase by grade as repetition's negative effects are strengthened. Evidence shows these children are far more likely to drop out, especially in the later grades. In the Philippines, for example, being two years over age more than halves the chances of survival to grade 9. High dropout rates for over-age pupils point to a wider set of policy problems, some linked to education quality and others to non-school factors. In higher grades over-age pupils may face growing pressure to get a job, to take over household work or, in the case of girls, to marry. To the extent that such pressure is linked to poverty, social protection programmes and financial incentives to keep children in school can make a difference.
- Large percentages of children in East Asia and the Pacific never complete primary education. The median survival rate to the last grade of primary education for East Asia was 79% in 2005. In Cambodia and the Lao People's Democratic Republic, the survival rates were 55% and 62%, respectively – well below the subregional median. Meanwhile, among other countries with data, almost all children reached the last grade of primary education in Brunei Darussalam, Malaysia and the Republic of Korea.

### Disparities within countries

- Within-country disparities are rampant throughout the region, with the richest households enjoying the highest level of school participation and survival. Evidence from household surveys indicate that children from the wealthiest 20% of households in countries including Cambodia, Indonesia and the Philippines have primary net attendance rates close to or greater than 90%, while rates among children from the poorest quintile are much lower. Cambodia provides an example of a particularly wide gap: 58% of the poorest 20% attend school, compared with 89% of the richest 20%. In Indonesia and the Philippines more than half the children not attending school are from the poorest quintile, and the share rises to 60% in Viet Nam.
- Household wealth also influences how children progress in education. For example, in Cambodia and Myanmar, while children from poor households are almost as likely to start school as their richer counterparts, they are far more likely to drop out, with inequality widening progressively as children advance through the primary cycle.
- Disparities based on wealth do not exist in isolation. They interact with wider inequalities and markers for disadvantage related to location, language and other factors. In many countries, living in a rural area carries a marked handicap in terms of opportunities for education. Rural children are less likely to attend school and more likely to drop out than their urban cousins. Children living in rural areas have been found to be at a particular disadvantage if they do not have access to school instruction in their mother tongue. Slum dwellers are also disadvantaged in terms of school attendance, as slums are often characterized by high levels of poverty, poor child health and limited participation in education. Cultural factors such as religion and ethnicity can also affect both the demand for schooling and the supply.
- Overall, breaking down these inequalities is key to accelerated progress towards UPE. This requires developing policies targeting poor, marginalized or hard-to-reach households, particularly in slums and remote rural areas. Such groups face multiple disadvantages, including chronic poverty, high mortality, and poor health and nutrition.

Child labour, ill health and disability are three of the most common challenges to UPE.

- **Child labour** not only violates a children's right to education, it is also associated with delays in school entry, reduced school attendance and early dropout. In absolute terms, most child labourers – 122 million in total – live in Asia and the Pacific. Here, too, progress has been slow, with a small decline from 19.2% to 18.8% between 2000 and 2004 in the share of working children. School attendance figures provide stark evidence of the trade-off between child labour and UPE. Child labour is associated with an attendance disadvantage and delayed school entry. In Cambodia, for

example, a working child is 17% less likely to enter school at the official age and thus runs a higher risk of dropout. When schools are unavailable or distant, when the cost of schooling is high and the perceived quality low, children are more likely to work than go to school. In other cases, household poverty and associated labour demand 'pull' children into labour markets. Practical measures are needed, first to reduce the pressures that force poor households to augment income or labour supply through child work and, second, to strengthen incentives for sending children to school. Other incentives, such as school meal programmes, financial incentives to disadvantaged groups, social protection measures and conditional cash transfer programmes, can also play an important role.

- **Inadequate nutrition and poor health** continue to track children after they enter school, trapping them in a vicious cycle of cumulative disadvantage. Reversing this cycle requires public health interventions, some of which can be initiated through schools. Investments in public health offer some of the most cost-effective routes to increased school participation. Conversely, failure to invest in health can have large hidden costs for education.
- In many developing countries *children with disabilities* are still among the most marginalized and least likely to attend school. Evidence from household surveys indicates that the difference in school attendance rates between children aged 6 to 11 with and without disabilities ranges from twenty-nine percentage points in Cambodia to sixty in Indonesia. Speeding up progress towards UPE will require policies focused on facilitating access for disabled children – and on political leadership to change public attitudes.

## Post-primary education

Increasing access to secondary and tertiary education supports government commitments to EFA, provides further incentive for children to complete primary school, expands the supply of qualified teachers, and improves knowledge levels and skills training for the labour market. While participation in post-primary education is expanding, access remains limited in several countries of East Asia and the Pacific. Within-country disparities in participation and completion tend to reinforce existing social inequalities.

- Of children who complete the primary education cycle, girls are at a disadvantage for entering secondary education. The transition rate from primary to secondary education was about 90% in several countries with data in 2005, including Fiji, Malaysia, the Philippines and the Republic of Korea. It was under 75% in Myanmar, Tonga and Vanuatu.
- In 2006, some 162 million students were enrolled in secondary education in East Asia and the Pacific, an increase of nearly 29 million since 1999. Total secondary NER grew, averaging 69% in 2006, compared with 61% in

1999. Participation levels in secondary education vary greatly within the region, with the highest NERs in Japan (99%), the Republic of Korea (96%) and Brunei Darussalam (90%), and the lowest in Cambodia (31%), the Lao People's Democratic Republic (35%) and Vanuatu (38%).

- Technical and vocational education and training are relatively developed, especially in the Pacific, where on average a third of secondary school students were enrolled in such programmes in 2006, compared with 13% for the whole region.
- The transition from lower to upper secondary education is a critical dropout point in many education systems. The average GER in 2006 was much higher in lower secondary education (92%) than in upper (58%). The gap in the GER in favour of lower secondary was especially large (more than 35 percentage points) in some countries, including China, Fiji, Kiribati, Malaysia and Thailand. On the other hand, participation was much higher in upper than lower secondary in Australia<sup>3</sup> and New Zealand.
- As with primary education, socio-economic disparities in secondary education participation and survival are marked, especially those based on household wealth, residence, age and language. Recent household surveys show that the ratio of secondary net attendance rates between the richest and the poorest households ranges from 1.3 in Cambodia (and 1.4 in the Philippines and Viet Nam) to 2.0 in Indonesia. Analysis of the relationship between household wealth and survival rates by grade reveals a number of patterns. In the Philippines, the relationship is fairly muted in the early grades of primary education but much more conspicuous in the upper grades of secondary education. Cambodia shows another pattern, where the relationship between household wealth and survival rates is fairly consistent throughout primary and secondary education.
- Disadvantages based on characteristics other than household wealth also cross the divide between primary and secondary school. Speaking an indigenous or non-official language remains a core marker for disadvantage. When the home language and official national language differs, the chances of completing at least one grade of secondary school are reduced.
- Nearly 44 million students in East Asia and the Pacific (30% of the world's total) were enrolled in tertiary education in 2006, an increase of 21 million since 1999. Even so, with an average GER of 25%, the level of participation in tertiary education in the region remained low and varied greatly among countries, ranging from less than 5% in Cambodia and Vanuatu to 93% in the Republic of Korea.

3. In Australia, enrolment data for upper secondary education include adult education (students over age 25), particularly in pre-vocational/vocational programmes, in which males are in the majority. This explains the high level of GER and the relatively low GPI.



## Learning needs of young people and adults

Most countries in the region have yet to seriously address the challenging tasks that EFA goal 3 entails: meeting the diverse learning needs of young people and adults through lifelong learning programmes and skills acquisition.

- In East Asia and the Pacific, the immense unmet need for such programmes reflects the past experiences of millions of youth who never attended school or who dropped out and never acquired basic skills, and nearly 113 million adults who still do not enjoy the right to literacy. Given the understandable pressure to extend the cycle of basic education and expand secondary education, there is a clear risk that the disparity between governments' commitments to formal and non-formal education will be further accentuated in coming years.
- Many governments give too little priority to the learning needs of youth and adults in their education strategies and policies. Inadequate public funding hampers provision and weak monitoring obscures learning deficits among adults. The fact that no quantitative targets were established at Dakar, apart from the main literacy target, contributes to a lack of urgency.
- Adult learning programmes are found in a myriad of formal, informal and non-formal settings. In East Asia and the Pacific, non-formal education programmes differ in terms of objectives, target groups, content, pedagogy, scale and provider type. Many large-scale literacy programmes, often extending to life skills (e.g. in health and civic rights), livelihood skills (income generation, farming) and/or equivalency education, are supported by international non-government organizations, and bilateral and multilateral agencies. For example, Indonesia takes a broader view of non-formal provision, stressing flexibility and programme diversity to complement formal education. Meanwhile the Philippines largely conceives of non-formal education as any structured learning activity outside the formal education system.
- There is a strong case to be made for clarifying the purpose of lifelong learning provision, improving data flows and, critically, strengthening political commitment in this area. As a first step towards more effective monitoring, improved information is needed about how different stakeholders define adult learning needs, which groups are targeted, what types of skills are taught, how programmes are implemented and whether they are sustainable given current funding sources.

## Adult literacy

Reading, writing and calculating are essential skills for today's world. Literacy and numeracy enhance self-esteem, contribute to empowerment and educational attainment, improve health, increase employment opportunities and lower child mortality. Despite these advantages for individuals and societies, literacy remains a neglected goal. Barriers to widespread literacy include insufficient access to education of good quality, weak support for young people exiting the school system, poor funding and administrative fragmentation of literacy programmes, and limited opportunities for adult learning. Many of these barriers disproportionately affect marginal and vulnerable groups, and exacerbate socio-economic inequalities.

- Adult illiteracy remains an enormous challenge in East Asia and the Pacific, even though the number of adults lacking literacy skills has been nearly halved since 1985–1999. In 2000–2006 about 113 million adults in the region – nearly 15% of the global total – could not read and/or write, with understanding, a simple statement in a national or official language. More than 70% of these were women in the region as a whole (55% in the Pacific subregion). The overall number of adult illiterates is projected to decrease, albeit more slowly than in previous decades, to 81 million by 2015.
- Owing to the size of their populations, China and Indonesia account for 65% and 13%, respectively, of the region's adult illiterates. Nevertheless, the number of adult illiterates has been more than halved in China since 1985–1994, and has fallen by at least 25% in Brunei Darussalam, Indonesia and Samoa. In Viet Nam, the number of adult illiterates increased, mainly due to the continued population growth.
- Between 1985–1994 and 2000–2006, the adult literacy rate in East Asia and the Pacific increased from 82% to 93%, mainly through a marked reduction of illiteracy in China.<sup>4</sup> The rise was more pronounced among women, whose literacy rate climbed from 75% to just over 90%. In 2000–2006, the range of adult literacy rates varied within the region from lows of 57% in Papua New Guinea and 73% in the Lao People's Democratic Republic to 99% in Samoa and Tonga.
- Adult illiteracy is the product of past exclusion from educational opportunities: tomorrow's illiteracy figures will reflect current patterns of access to learning. With the continued expansion of formal education in the region, the number of illiterate youth (aged 15 to 24) declined by more than 13 million between 1985–1994 and 2000–2006. All of the reduction occurred in East Asia; the number of illiterate youth increased in the Pacific (partly due to population growth) and that trend is projected to continue at a slower pace to 2015.

4. The number of adult literates in China rose dramatically between 1985–1994 and 2000–2006 and the adult literacy rate grew from 78% to 93% through the combined impact of mass literacy campaigns organized in previous decades, expansion of primary education and the spread of text-laden literate environments.

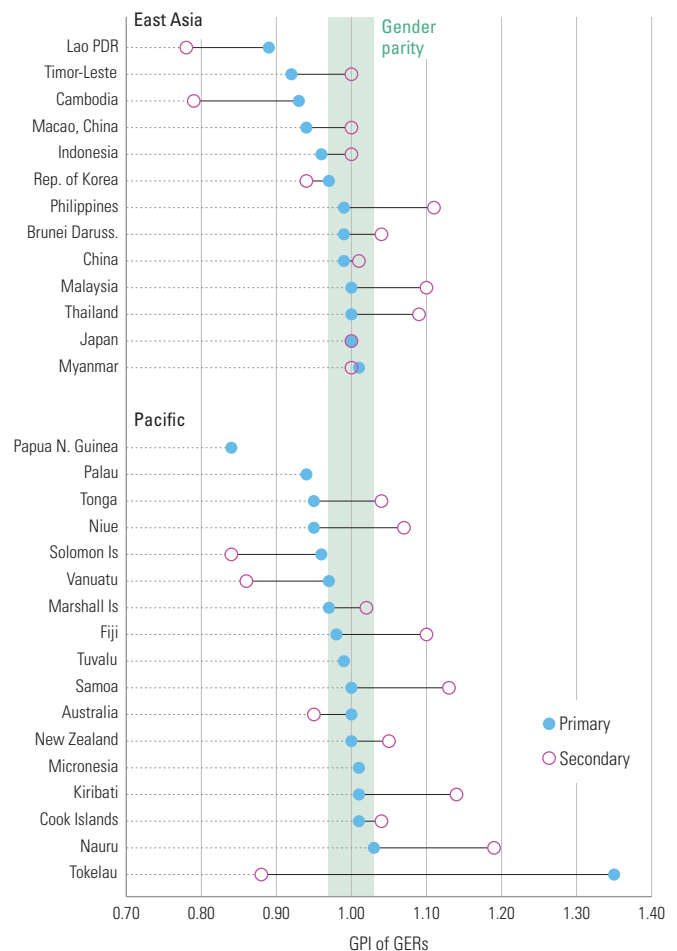
- National literacy rates conceal major disparities within countries. Disparities in adult literacy are especially salient among groups characterized by gender, poverty, place of residence, ethnicity, language and disabilities. As a whole, the region narrowed gender disparities in literacy between 1985–1994 and 2000–2006, with the average GPI in adult literacy increasing from 0.84 to 0.94. Despite the improvement, there is a pressing need to address women's literacy needs, particularly in Cambodia, the Lao People's Democratic Republic and Papua New Guinea, where gender disparities in adult literacy are greatest, with GPIs below 0.85 in 2000–2006.
- In general, illiteracy rates tend to be highest in the countries with the greatest poverty, and among the poorest households and in rural areas. Indigenous populations, many of them characterized by proficiency in non-official languages, tend to have lower literacy rates than non-indigenous populations. For example, in Viet Nam, the literacy rates in 2000 were 87% nationally, 17% for ethnic minorities and just 5% for some indigenous groups.
- Achieving EFA implies paying sustained attention to youth and adult literacy needs through diverse and flexible literacy programmes. It also means developing literate environments – promoting the availability and use of multilingual written materials and new technology, which encourage literacy acquisition, a reading culture, improved literacy retention and access to information.

## Gender parity and equality

The Dakar Framework sets out a two-part gender equity agenda: first, to achieve gender parity in school participation and, second, to improve gender equality in educational opportunities and outcomes.

- There has been sustained progress towards parity in education in the region. However, the 2005 target for eliminating gender disparities in primary and secondary education was missed in many countries, with only five countries at parity at both levels (China, Japan, the Marshall Islands, Myanmar and the Republic of Korea). Gender gaps persist in many countries, particularly in secondary and tertiary education.
- In primary education, gender parity has been achieved by nearly two-thirds of the countries in the region. Significant improvements in reducing the gender gap in the primary GER were made in several countries, particularly Cambodia (GPI of GER rose from 0.87 in 1999 to 0.93 in 2006) and the Cook Islands (from 0.95 to 1.01). Significant challenges persisted in Papua New Guinea and the Lao People's Democratic Republic, where the GPIs were below 0.90 in 2006. In stark contrast with other countries, Tokelau faced a large gender gap at the expense of boys in primary education, with a GPI of 1.35 (Figure 3).

**Figure 3: Gender disparities in primary and secondary gross enrolment ratios, 2006**



- In all countries with data, girls are less likely to repeat grades than boys, have a greater chance of reaching the final primary grade and are more likely to successfully complete primary school.
- Gender gaps were more marked in secondary education and existed in almost three-quarters of the twenty-six countries with data. Gender disparities favouring boys were prevalent in Cambodia and the Lao People's Democratic Republic, with fewer than 80 girls enrolled in secondary education for 100 boys in 2006. Girls had the advantage in several countries, including some Pacific island states (Kiribati, Nauru, Samoa), where the GPIs of secondary GER were above 1.13. Cambodia, the Lao People's Democratic Republic and Solomon Islands registered rapid progress in increasing girls' participation in secondary school. In Macao (China), progress in eliminating disparities against boys led to gender parity at this level.
- Since 1999, growing numbers of women have been participating in tertiary education, resulting in a marked reduction in gender disparities in East Asia and the Pacific.

The average GPI of tertiary GER increased from 0.75 in 1999 to 0.94 in 2006. Higher rates of female participation occurred in the Pacific (GPI of 1.31) than in East Asia (0.94). Significant gender disparities favoured women in Australia, Brunei Darussalam, Fiji, Malaysia, New Zealand, the Philippines and Tonga (GPIs 1.20 or higher), while far fewer female than male students were reported in Cambodia, the Lao People's Democratic Republic, the Republic of Korea and Vanuatu (GPIs less than 0.70).

- Within countries there is a strong association between poverty and gender inequalities in education. Gender differences in net attendance rates tend to be wider for poorer households than for richer ones. For example, in Viet Nam results from the 2002 household survey showed the GPI of the net secondary attendance rate at 0.93 in the poorest quintile, while gender parity was achieved in the richest 20%. In some countries where average net attendance rates are higher for girls than for boys, the relationship between poverty and gender disparities works the other way. For example, in the Philippines, the GPI of the secondary net attendance rate for the poorest quintile was 1.24, compared with 0.98 for the richest.
- Poverty often interacts with other markers of disadvantage – for example, being born into a group that is indigenous, a linguistic minority, of low caste or geographically isolated – thereby magnifying gender disparities. In the Lao People's Democratic Republic, for instance, poor rural girls aged 6 to 12 who are not members of the Lao-Tai majority had the lowest attendance rate of any group: 46% in 2002/2003, compared with 55% for poor non-Lao-Tai boys and 70% for poor rural Lao-Tai girls.
- Cultural attitudes and practices that promote early marriage, enforce seclusion of young girls or attach more value to boys' education are barriers to gender equity. Distance to school can also have an impact, as in the Lao People's Democratic Republic, where it is negatively related to girls' enrolment. Overcoming these inequalities requires gender-sensitive public policy and governance initiatives, such as fee abolition and incentives for girls' schooling. Removing cultural barriers requires long-term provision of good-quality public education and strong commitments by political leaders, backed by legislation enforcing the equal rights of girls.
- Reducing gender disparities in formal education does not automatically translate into gender equality in educational opportunities and outcomes. Girls and boys achieve different outcomes not just in overall performance but also by subject. Education systems and classroom practices partly explain these differences, but such school-based factors interact with wider social, cultural and economic forces that influence expectations, aspirations and performance along gender lines. Four themes emerge from a compilation of recent research and assessments:
  - *Girls continue to outperform boys in reading literacy and language arts.* This effect holds across a diverse group of countries, including those with significant gender disparities in school participation.
  - *Historically, boys have outperformed girls in mathematics at primary and secondary level, but that picture is changing.* Increasingly, girls are performing in mathematics at levels equal to, or even above, those of boys. For example, the 2003 TIMSS results showed that girls in the Philippines outperformed boys in mathematics in grade 4.
  - *While boys tend to maintain an advantage in science, the gap is often small.* In PISA 2006, which tested reading, mathematics and science, gender differences in science were the smallest among the three subjects.
  - *Girls and boys favour different subjects in tertiary education.* Despite increased female participation in tertiary education, some subjects are still male domains. Among the few countries with data available for 2006, the shares of females enrolled in science and engineering-related fields were below men's shares in Cambodia, Japan, Macao (China), New Zealand and the Republic of Korea, while women were over-represented in science in Brunei Darussalam and Malaysia. Overall, women tend to hold high shares in fields long considered 'feminine', such as education, humanities and the arts, particularly in countries including Australia, Brunei Darussalam, Japan, Macao (China) and New Zealand. Recent studies indicate that complex socialization processes influence gender differences in choice of subject areas. These include poor career counselling, lack of role models, negative attitudes from families, fear of mathematics and fear of being in the minority.
- Social conditioning and gender stereotyping can limit ambition and create self-fulfilling expectations of disparities in outcomes. Recent research underlines a strong association between the degree of gender equality in society and the size of gender gaps in mathematics achievement. Teacher attitudes and practices that translate into different treatment of boys and girls can affect cognitive development and reinforce gender stereotyping. So can gender bias in textbooks.
- Female teachers can serve as role models for young girls, potentially countering gender stereotypes. In East Asia and the Pacific, as elsewhere, female teachers tend to be more represented in pre-primary and primary education, while the reverse is true at higher levels. They also tend to be clustered in urban schools. A recent survey in eleven middle-income countries, including Malaysia and the Philippines, shows that pupils in rural primary schools are more likely than urban pupils to be taught by male teachers. Rural girls thus have less chance of contact with female role models who might raise their expectations and self-confidence.



## Quality of education

The ultimate aim of EFA is that children receive the basic skills they need to enrich their lives, expand their opportunities and participate in society. The quality of the education they receive – in terms of what they learn, under what conditions and the crucial role of teachers – is key.

### Learning outcomes

- While international assessments consistently spark intense political debate, less attention is paid to the absolute level of learning, especially in developing countries. Recent national learning assessments reveal that many children in East Asia and the Pacific emerge from school with only the most basic skills. For example, in Cambodia a grade 3 assessment of the Khmer language involving almost 7,000 students found that 60% had 'poor' or 'very poor' skills in reading (e.g. as regards pronunciation and word recall) and writing (e.g. punctuation and sentence structure). Overall, deep learning deficits are too common among schooled children in many developing countries. The policy challenge is clear: creating school systems in which a significant segment of each school-age cohort reaches a minimal learning threshold.
- International assessments confirm these deep learning deficits in some countries in the region. Results from PISA, which tests 15-year-old students in several subjects, highlight striking disparities. PISA 2006 science results showed Japan, Macao (China) and the Republic of Korea faring relatively well, while 62% of students from Indonesia and 46% from Thailand scored at or below level 1, the lowest level in the PISA science ranking.
- International assessments can understate the divide between developed and developing countries since they assess learning outcomes only among schooled children. The exclusion of out-of-school children can distort national learning profiles. In Indonesia, tests of language and mathematics among out-of-school youth found lower achievement levels than among enrolled students.
- Disparities in learning outcomes are most pronounced *within* countries and exist at every level: between regions, communities, schools and classrooms. Disparities in learning achievements within a given country can be explained by three major factors: student background, the education system and school context.
  - **Student background.** Apart from inherent ability, student achievement is the product of social, economic and cultural circumstances, such as household income, parental education, gender, ethnicity, home language and other family characteristics. These student endowments significantly influence how much children actually learn and the extent of variation in learning outcomes.

- **Education system.** The way education systems are organized, including such factors as the mix of students, grade promotion, ability grouping, multigrade teaching and school-leaving exams, can have a significant impact on learning outcomes. Whereas policies such as extended ECCE provision can increase equity, others, such as highly selective academic streams, can lead to greater disparities.

- **School context.** An effective school learning environment relies on basic infrastructure, professional leadership, motivated teachers, sufficient instructional time and learning materials, nourished children ready to learn, and the use of performance-enhancing monitoring and evaluation. Yet many essential resources, such as electricity, seats, desks, textbooks and libraries, are scarce in some countries in the region.

- Recent monitoring work underlines the appalling and unequal state of education infrastructure and quality in eleven developing countries, including Malaysia and the Philippines. While Malaysia was found to have the best-resourced schools, half or more of school heads in the Philippines said their 'school needs complete rebuilding' or 'some classrooms need major repairs.' One-third or more of students in the Philippines attend schools with insufficient toilets.
- Distance and student well-being are serious problems. In the Philippines, teachers report that one in seven children has to walk more than five kilometres to attend school and one-third or more of students attend schools with insufficient toilets. Teachers in all eleven countries report that at least 9% of children come to school with an empty stomach.
- Many countries and schools lack fundamental resources for learning: the Philippines suffers an acute shortage of seating, nearly half of students attend schools with no libraries and about the same percentage have no textbooks. In Malaysia the shares are much lower, with only 20% or less attending schools with no libraries.
- In many developing countries key school resources are unequally distributed between urban and rural areas. Despite uniform countrywide guidelines, grade 4 teachers in village schools in the Philippines and, to a lesser extent, Malaysia report teaching significantly fewer annual hours of mathematics and reading than teachers in urban schools. Poor children are more likely to attend inadequately equipped schools, which exacerbates other inequalities.

Clearly, governance decisions concerning school infrastructure, classroom processes and the recruitment, deployment and effectiveness of teachers, as well as the student body composition, matter a great deal for learning.

## Teachers

For students to perform well, an adequate supply of well-trained and motivated teachers, and reasonable pupil/teacher ratios (PTRs) are needed. Teachers, and how they are recruited, trained and deployed among schools, play an important role in improving student learning and reducing disparities.

- ## Teachers
- For students to perform well, an adequate supply of well-trained and motivated teachers, and reasonable pupil/teacher ratios (PTRs) are needed. Teachers, and how they are recruited, trained and deployed among schools, play an important role in improving student learning and reducing disparities.
- Some 9.7 million teachers worked in primary education in 2006 in East Asia and the Pacific. The number of primary school teachers had increased since 1999 in most countries with data available. Teaching staff increased by more than 30% in Malaysia and Vanuatu, and the PTR declined by four points. The region will need to recruit an estimated 4 million more teachers by 2015, with the largest increases required in China and Indonesia, mainly to fill posts left by retirement and other departures. This estimate does not take account of additional investment (e.g. for teacher training) required to ensure that teaching is effective.
  - There is broad consensus that a PTR of 40:1 is an approximate ceiling for a primary school learning environment of good quality. The regional PTR for primary education was 20:1 in 2006, down from 22:1 in 1999. Most countries with data available improved their situation. The decline in PTRs was particularly marked in Macao (China) and Viet Nam, where the ratios declined by nearly ten percentage points to 21:1. PTRs increased in some countries, however, including Cambodia, which had the highest number of primary school pupils per teacher in the region (50:1 in 2006).
  - Among the few countries with data, the percentage of trained primary school teachers is high – up to 98% in Cambodia and Myanmar. The latter improved its situation significantly between 1999 and 2006, raising the proportion of trained primary school teachers by more than 50%.<sup>5</sup> A relative shortage of trained teachers exists in Brunei Darussalam, the Lao People's Democratic Republic and Macao (China), where the percentage is below 90%.
  - Excessive PTRs, shortages of trained teachers and questions about teachers' skills point to wide-ranging governance problems. Teacher shortages often result from inadequate investment in education and questionable incentive structures for teacher recruitment and retention. At the primary level in particular, teacher training is often fragmented and incomplete – in some cases, non-existent.
  - National PTRs often mask large disparities within countries, again influenced by location, income and type of school. While urban PTRs tend to be higher than those in rural areas, untrained teachers are often concentrated in poor rural areas. PTRs also depend on whether schools are publicly funded. Many countries also show a marked gap between government and non-government providers. Because children from poorer households are more likely to attend government schools, unequal PTRs both reflect and reinforce wider inequalities.
  - Excessive PTRs and shortages of trained teachers are only part of the problem. Other factors affecting the quality of teaching and learning include teacher absenteeism, low teacher morale related to poor salaries and working conditions, and the effect of HIV/AIDS on teacher mortality rates.

5. Myanmar's Basic Education Long-term Development Plan (2001/2002 to 2030/2031) focused for the first five years on reducing the number of uncertified teachers and expanding teacher-training colleges. It introduced two-year pre-service training programmes and increased the intake of primary and lower secondary teachers to in-service teacher training in twenty education colleges. Also, Myanmar's two Institutes of Education, in Yangon and Sagaing, provided more teacher-training programmes for the upper secondary level.

## The EFA Development Index

The EFA Development Index (EDI) is a composite measure of overall progress. Ideally, it should include all six EFA goals, but due to serious data constraints, it currently focuses only on the four most easily quantified goals, attaching equal weight to each: UPE, adult literacy, gender parity and equality, and quality, each proxied by one relevant indicator.<sup>6</sup>

For the school year ending in 2006 the EDI could be calculated for thirteen of the thirty-three countries in the region with data on all four goals. Table 1 provides a summary of the position of these countries in relation to full EFA achievement (an EDI value of 0.97 to 1.00).

- Six countries have either achieved all four of the most quantifiable EFA goals, on average, or are close to doing so, with EDI values averaging 0.95 or above.
- Five countries are midway to achieving EFA as a whole, with EDI values ranging from 0.80 to 0.94. Most of these countries show uneven progress across the four goals included in the EDI. While participation in primary education is often high, there are deficits in other areas, such as education quality as measured by survival rate to grade 5 (Fiji, Indonesia, Myanmar and the Philippines).
- Two countries, Cambodia and the Lao People's Democratic Republic, are lagging behind, with EDI values below 0.80. These low EDI countries face multiple challenges: low education participation (particularly in the Lao People's Democratic Republic), widespread adult illiteracy (the adult literacy rate is 62% in each), gender disparities and inequalities, and poor education quality.

### Overall EFA achievement: inequalities within counties remain the rule

The EDI provides a snapshot based on national averages. But progress towards EFA, as the word 'all' implies, should be shared equally across the whole of society. One drawback of the standard EDI is that it does not capture variation based on wealth and other indicators of disadvantage. To address this shortcoming, an EFA Inequality Index for Income Groups (EIIIG) was constructed for thirty-five developing countries, including four in East Asia (Cambodia, Indonesia, the Philippines and Viet Nam), using household survey data.<sup>7</sup>

- The EIIIG shows large disparities in overall EFA achievement between income groups. The disparities are greater in Cambodia than in the three other countries, with the EIIIG varying from 0.49 for the poorest quintile to nearly double (0.86) for the richest group. Disparities within income groups were less pronounced in Indonesia and the Philippines, with higher overall EFA achievement. Despite being among countries with a high EIIIG value, Viet Nam still faces some inequalities, with 0.73 for the poorest quintile and 0.96 for the richest quintile.
- Progress towards overall EFA achievement has benefited the poorest in the four countries. A close look at the interaction between wealth and place of residence highlights the impact of poverty in rural areas. Education inequality between wealth groups as measured by the EIIIG ratio of richest to poorest quintile tends to be higher in rural areas than urban in three of the four countries; in Cambodia however, the urban poor are more disadvantaged.

**Table 1: Mean distance from the four EFA goals included in the EDI, 2006**

<b>EFA achieved</b> (EDI between 0.97 and 1.00)	<b>Close to EFA</b> (EDI between 0.95 and 0.96)
Brunei Darussalam, Japan, New Zealand, Republic of Korea (4)	Malaysia, Tonga (2)
<b>Intermediate position</b> (EDI between 0.80 and 0.94)	<b>Far from EFA</b> (EDI below 0.80)
Fiji, Indonesia, Macau (China), Myanmar, Philippines (5)	Cambodia, Lao People's Democratic Republic (2)

6. UPE is proxied by the total primary NER (the ratio of the number of children of primary school-going age enrolled in either primary or secondary education to the total number of children of primary school-going age); adult literacy by the literacy rate of persons aged 15 and above; gender parity and equality by a gender-specific EFA index (GEI), an average of the GPIs for primary and secondary GERs and for the adult literacy rate; and education quality by the survival rate to grade 5. The EDI value for a given country is an arithmetic mean of these four indicators. It falls between 0 and 1, with 1 representing achievement of EFA.

7. The EIIIG uses a different set of indicators to provide a measure similar to the EDI, showing distribution of overall EFA achievement within countries by wealth and by rural/urban location. The EIIIG differs from the EDI in three main ways. The total primary net attendance rate is used rather than the total primary NER. As many household surveys do not include literacy rates, this EIIIG component is based on the proportion of 15- to 25-year-olds with five or more years of education. Finally, the survival rate for the EIIIG is defined as the proportion of 17- to 27-year-olds who report having at least five years of education among those that reported having at least one year of education.

## Raising quality and strengthening equity: why governance matters

Education governance is not an abstract concept. It affects whether children have access to well-resourced schools that are responsive to local needs. It is also concerned with ensuring that teachers are trained and motivated, and that teachers and schools are accountable to parents and communities for improving learning outcomes. Education governance is about how policies are formulated, priorities identified, resources allocated, and reforms implemented and monitored.

Governance reform is a prominent part of the EFA agenda. The Dakar Framework for Action sets out broad principles, which include creating responsive, accountable and participatory education systems. The widely held conviction is that moving decision-making away from remote government agencies and making the process more localized and transparent will make education service providers more responsive to the needs and concerns of the poor. However, experience in both developed and developing countries points to highly variable results. Two key findings emerge. First, there is no blueprint for good governance: each country has to develop its own national and local solutions. Second, governments in all regions have attached insufficient weight to equity in their design of governance reforms. There is an urgent need to ensure that the interests of the poor, marginalized and vulnerable are placed firmly at the centre of the governance agenda.

The 2009 Report focuses on four areas that highlight some of the most important currents in governance reform.

### Financing education for equity

Additional funding is needed if the world is to achieve the Dakar goals. But increasing funding is part of a broader set of education policy challenges. Countries also need to improve efficiency and develop strategies addressing inequalities in education finance if EFA is to be achieved.

- In many countries, corruption is a major source of both inefficiency and inequity – the former because it means more public money provides fewer inputs and the latter because the costs of corruption invariably fall most heavily on the poor. Monitoring the use of funds through the *tracking of public expenditure* can help reduce corruption.
- Public spending on education has the potential to redress inequalities but often reinforces them instead. In some cases, the contours of unequal financing follow geographic differences in socio-economic status. For example, in China, per student spending at the primary level varies by a factor of ten between the lowest spending and highest spending provinces, broadly reflecting differences in provincial wealth.

In other contexts, some governments have developed approaches aimed at making spending more equitable. Examples include *school grants* and *formula funding* programmes in which allocations are adjusted according to need. However, outcomes have been mixed.

- *Financial decentralization* can exacerbate the gaps between rich and poor areas. Unless central governments retain a strong role in redistributing financial resources from richer to poorer areas, the financing gaps in education are likely to widen. China's experience with fiscal decentralization provides a cautionary tale. During the 1990s the central government reduced its share in overall education financing, giving more responsibility to local governments, schools and communities. This led to a decline in the share of GDP allocated to education. Many schools and local authorities resorted to charging households and equity suffered.

### Choice, competition and voice: school governance reform and EFA

School governance reform aims to strengthen the voice of the poor and increase their choices by transferring responsibility to communities, parents and private providers. An overarching lesson from experience is that such reform is not a substitute for government's responsibility to ensure that the public education system is of good quality.

- *School-based management* describes a range of reforms aiming to give teachers, parents and communities more autonomy over decision-making in schools. In some cases, these reforms have improved learning achievements and strengthened equity. More widely, though, there is limited evidence of improvement in learning outcomes or teaching practices.
- Encouraging the *participation of parents and communities in decision-making* can make schools more responsive to local needs. However, local power structures associated with poverty and social inequality can still limit the influence of the poor and marginalized. In Cambodia, for example, local school support committees are charged with monitoring children's progress, increasing enrolment, developing school improvement plans and monitoring budgets. A recent Public Expenditure Tracking Survey reveals that the committees have not been effective, that few parents know about the funds and that parental representation is limited.
- Expanding school choice is widely viewed as an incentive for schools to improve their performance. Some governments use *vouchers* and other instruments to facilitate transfers from public to private providers of education, or *contract the management of government schools* to non-state providers. However, these reforms have not unambiguously raised academic achievement standards. Often they have actually widened inequalities.

- *Low-fee private schools* are changing the education landscape in some parts of the world. Their rapid growth is a symptom of failure in the availability or quality of government schools. However, they risk widening the gap between those who can and cannot afford to pay. There are also questions about the quality of education they provide.

## Strengthening teacher governance and monitoring

Many school systems fail to provide an education that meets even the most basic standards for quality and equity. To address this, attention needs to be paid to teacher recruitment, deployment and motivation, together with school supervision and effective use of information from learning assessments.

- From one perspective, *teacher salaries* are viewed as crowding out spending on learning materials and other aspects of education provision. From an alternative perspective, they are seen as too low – near or below the poverty line in some countries – with obvious implications for teacher motivation and standards.
- Hiring *contract teachers* can help address teacher shortages at lower cost. However, relying on contract teachers can weaken quality by lowering the standard of the teaching staff or reducing overall teacher morale.
- Teacher deployment is often inequitable within countries, which can exacerbate inequality in learning. Prioritizing *training of teachers from under-represented groups*, together with *local recruitment*, can make a difference. Evidence from the Lao People's Democratic Republic and Cambodia demonstrates the potential of recruiting ethnic minorities into teacher training and some of the challenges that arise (Box 1).
- Some governments see *performance-related pay* as a strategy to improve teacher performance, including by reducing teacher absenteeism. But there is little evidence that it produces positive results – and some evidence that it has perverse effects, for example by leading teachers to focus on the best-performing students.
- Using information from *learning assessments to monitor* quality standards and equity is one key to improving learning outcomes. Increasingly, information from learning assessments is used to identify problems and inform policy, with encouraging results.
- Information from learning assessments can also play an important role in addressing equity goals. In 2001, Viet Nam conducted a national grade 5 learning assessment. After controlling for socio-economic background and school location, the assessment showed strong correlations between pupil achievement and both teacher qualifications and availability of school resources. The country adopted

### Box 1: Recruiting ethnic minority teachers in the Lao People's Democratic Republic and Cambodia

The Lao People's Democratic Republic and Cambodia are accelerating progress towards UPE, but teacher shortages in remote areas are holding back their efforts to expand access and overcome marked regional disparities. In response, authorities in both countries are trying to recruit teachers from ethnic minority groups.

In the Lao People's Democratic Republic, the initiatives are a response to the failure of incentives to increase teacher supply in remote mountainous areas. Under a previous policy, the government offered supplements equivalent to between 15% and 20% of salary, but these proved insufficient to outweigh teacher preference for urban postings.

The emphasis has now shifted to a programme aimed at recruiting ethnic minorities into teacher training. Entry requirements have been adjusted and financial inducements provided. Numbers passing through the programme have increased. However, serious administrative problems have been identified. Some of the students recruited do not actually come from targeted villages but enrol to receive the benefits offered. Language problems in teacher training have resulted in high dropout levels for indigenous minorities. And many of the students who graduate do not go back to teach in their home areas, suggesting that the pull of urban employment is stronger than the incentives on offer to return to the local area to teach.

Public policy in Cambodia has followed a similar trajectory. In the past, transferring teachers into areas of high need, coupled with incentives for rural hardship postings, met with limited success. Salaries were too low to support the transfer of teachers lacking an extended family, housing or land in the area. Special resettlement allowances also proved insufficient. Thus there has been an increased emphasis on local recruitment.

Entry requirements for teacher training (set at grade 12 for national recruitment) have been waived in districts and provinces where secondary education is not widely available. This has opened the door to students from those areas that have only a lower secondary education. Teacher-training scholarships for students from poor and ethnic minority (non-Khmer) backgrounds have helped. Affirmative action targets have been set for the recruitment of minority students into teacher-training colleges, with one in four places reserved for non-Khmer students.

Evidence suggests that the strategy may be starting to pay dividends, although problems remain. Teaching posts in many remote areas remain unfilled. Moreover, it has not been possible either to fill all quota places with ethnic minority students or to prevent abuse of the quota system. Even so, local recruitment has helped expand the supply of teachers to isolated rural areas rapidly.



new regulations for primary schools in 2003, specifying minimum levels for several education inputs. By 2005 these efforts to raise the quality of the learning environment had begun to show results, with reduced gaps in quality inputs between the poorest and richest districts.

- *School supervision* is an essential aspect of monitoring, not only to oversee teacher and school performance but also to identify and support needed quality improvements.

## An integrated approach to education and poverty reduction

Sustained progress towards EFA depends on the effective integration of education planning within wider poverty reduction strategies, for an obvious reason: poverty, poor nutrition and ill health are formidable barriers to success in education.

- *Poverty reduction strategy papers* are failing to make the link between education and poverty reduction, with a weak link to the EFA agenda, limited consideration for equity in target-setting, a disconnect with broader governance reform, and poor integration of cross-sectoral approaches.
- *Social protection programmes* are making a strong contribution to education by addressing problems in health, nutrition and child labour.
- Political commitment together with *consultation processes* that provide opportunities for civil society organizations to participate in policy discussions are crucial. The challenge is to extend participation to make sure the voices of the poor and vulnerable are heard.

## Financing education

### National financial commitments to EFA

Dismal learning outcomes and high levels of inequality are possible at any level of spending. Rapid increases in spending do not necessarily lead to improved achievement levels. Yet financing thresholds are important. Students need access to resources and materials. Even with improved efficiency, chronic financing gaps in many countries contribute to inadequate access, poor quality, insufficient teacher recruitment and low teacher morale.

- The median percentage of GNP devoted to education was 3.6% in East Asia in 2006. Important variations were observed within the subregion: Cambodia allocated 1.8% of GNP to education, compared with 6.6% in Malaysia. Differences in the Pacific subregion were also wide. For example, Australia spent 4.7% of GNP on education, compared with 9.5% in the Marshall Islands and 10% in Vanuatu.
- Progress in the share of GNP devoted to education has been mixed, with as many countries in the region increasing the percentage as maintaining or decreasing it. For example, between 1999 and 2006 the Marshall Islands reduced the share of national income on education by almost four percentage points while Vanuatu increased it by just over three percentage points.
- The share of education in total public expenditure is a more direct measure of government commitment to education than the share in GNP. The median share of government spending on education in East Asia is similar to the developing country median (16% in 2006) and much higher than the median for developed countries (12%). Among the few countries with data, the share of total government expenditure devoted to education ranged from 9% in Japan to 25% in Malaysia and Thailand. Very little data were available for countries in the Pacific subregion.

## Contribution of external aid to EFA

- Total commitments of official development assistance for East Asia and the Pacific declined slightly from US\$13.7 billion in 1999–2000 to US\$12.6 billion in 2005–2006 (constant 2006 dollars).<sup>8</sup> Indonesia, Myanmar and Viet Nam saw large increases in aid receipts while Malaysia, the Philippines and Thailand saw large declines.
- The Cook Islands, Fiji, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu received increasing amounts of aid.
- The region as a whole received an annual average of US\$1.6 billion in aid to education in 2005–2006, up from US\$1.1 billion in 1999–2000. Aid to basic education increased from 27% of total education aid in 1999–2000 to 34% in 2005–2006.

### Acronyms and definitions

**ECCE: early childhood care and education.** Programmes that, in addition to providing children with care, offer a structured and purposeful set of learning activities either in a formal institution (pre-primary or ISCED 0) or as part of a non-formal child development programme. ECCE programmes are normally designed for children from age 3 and include organized learning activities that constitute, on average, the equivalent of at least 2 hours per day and 100 days per year.

**EDI: EFA Development Index.** See footnote 7.

**EIIIG: EFA Inequality Index for Income Groups.** A composite index measuring inequality in overall EFA achievement across different population groups. The EIIIG measures the (unequal) distribution of overall EFA achievement within countries according to household wealth and other socio-demographic markers, using a set of indicators from household surveys that differs from those in the EDI.

**GER: gross enrolment ratio.** Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education. For the tertiary level, the population used is that of the five-year age group following on from the secondary school leaving age. The GER can exceed 100% due to late entry and/or repetition.

**GIR: gross intake rate.** Total number of new entrants to a given grade of primary education, regardless of age, expressed as a percentage of the population at the official school entrance age for that grade.

**GNP: gross national product.** Gross domestic product plus net receipts of income from abroad. As these receipts may be positive or negative, GNP may be greater or smaller than GDP. This latter indicator is the sum of gross value added by all resident producers in the economy, including distributive trades and transport, plus any product taxes and minus any subsidies not included in the value of the products.

**GPI: gender parity index.** Ratio of female to male values (or male to female, in certain cases) of a given indicator. A GPI of 1 indicates parity between sexes; a GPI above or below 1 indicates a disparity in favour of one sex over the other.

**NER: net enrolment ratio.** Enrolment of the official age group for a given level of education, expressed as a percentage of the population in that age group.

**PISA: Programme for International Student Assessment.**

**PTR: pupil/teacher ratio.** Average number of pupils per teacher at a specific level of education, based on headcounts for both pupils and teachers.

**TIMSS: Trends in International Mathematics and Science Study.**

8. Two-year averages are used to dampen the effect of volatility in aid commitments.

Table 2: East Asia and the Pacific, selected education indicators

Country or territory	Total population (000)	Compulsory education (age group)	EFA Development Index (EDI)	Adult literacy rate (15 and over)				Early childhood care and education			
				1985–1994 <sup>1</sup>		2000–2006 <sup>1</sup>		Child survival and well-being		Pre-primary education	
				Total (%)	GPI (F/M)	Total (%)	GPI (F/M)	Under-5 mortality rate (‰)	Moderate and severe stunting (%)	GER	
										1999	2006
	2006		2006					2005–2010	1996–2006 <sup>1</sup>	Total (%)	Total (%)
<b>East Asia</b>											
Brunei Darussalam	382	5-16	0.972	88	0.89	95	0.96	7	...	50	51
Cambodia <sup>4</sup>	14 197	...	0.778	...	...	76	0.78	89	37	5	11
China	1 320 864	6-14	...	78	0.78	93	0.93	29	11	38	39
DPR Korea	23 708	6-15	...	...	...	...	...	62	37	...	...
Indonesia	228 864	7-15	0.925	82	0.86	91	0.92	32	...	23	37
Japan	127 953	6-15	0.994	...	...	...	...	4	...	83	86
Lao PDR	5 759	6-10	0.753	...	...	72	0.83	67	42	8	11
Macao, China	478	5-14	0.947	...	...	93	0.94	8	...	87	87
Malaysia	26 114	...	0.965	83	0.87	92	0.95	11	...	108	<b>125</b>
Myanmar	48 379	5-9	0.895	...	...	90	0.92	97	32	2	6
Philippines	86 264	6-12	0.888	94	0.99	93	1.01	27	30	30	45
Republic of Korea	48 050	6-14	0.984	...	...	...	...	5	...	80	<b>101</b>
Singapore	4 382	6-16	...	89	0.87	94	0.94	4	2	...	...
Thailand	63 444	6-14	...	...	...	94	0.96	15	12	97	92
Timor-Leste <sup>4</sup>	1 114	7-15	...	...	...	...	...	92	...	...	<b>10</b>
Viet Nam <sup>4</sup>	86 206	6-14	...	88	0.89	90	0.93	23	30	39	...
<b>The Pacific</b>											
Australia	20 530	5-15	...	...	...	...	...	6	...	...	104
Cook Islands	14	5-15	...	...	...	...	...	...	...	86	<b>94</b>
Fiji	833	6-15	0.921	...	...	...	...	24	...	16	16
Kiribati	94	6-15	...	...	...	...	...	...	...	...	75
Marshall Islands	58	6-14	...	...	...	...	...	...	...	59	<b>45</b>
Micronesia	111	6-13	...	...	...	...	...	42	...	37	...
Nauru	10	...	...	...	...	...	...	...	...	...	<b>89</b>
New Zealand	4 140	5-16	0.989	...	...	...	...	6	...	85	92
Niue	2	5-16	...	...	...	...	...	...	...	154	<b>119</b>
Palau	20	6-14	...	...	...	...	...	...	...	63	<b>64</b>
Papua New Guinea	6 202	6-14	...	...	...	57	0.85	84	...	...	...
Samoa	185	5-14	...	98	0.99	99	0.99	27	...	53	48
Solomon Islands	484	...	...	...	...	...	...	72	...	35	...
Tokelau	1	...	...	...	...	...	...	...	...	...	125
Tonga	100	6-14	0.967	...	...	99	1.00	22	...	30	<b>23</b>
Tuvalu	10	7-14	...	...	...	...	...	...	...	...	107
Vanuatu	221	6-12	...	...	...	...	...	34	...	...	<b>29</b>
	<b>Sum</b>			<b>Weighted average</b>				<b>Weighted average</b>		<b>Weighted average</b>	
East Asia and the Pacific	2 119 172	...	...	82	0.84	93	0.94	31	16	40	45
East Asia	2 085 044	...	...	82	0.84	93	0.94	31	...	40	44
Pacific	34 128	...	...	94	0.99	93	0.99	36	...	61	74
Developed countries	1 015 689	...	...	99	0.99	99	1.00	7	...	73	79
Developing countries	5 284 165	...	...	68	0.77	79	0.85	81	32	27	36
World	6 578 149	...	...	76	0.85	84	0.89	74	31	33	41

Sources: EFA Global Monitoring Report 2009, statistical tables; UNESCO Institute for Statistics; CRS online database (OECD-DAC, 2008).

Primary education										Country or territory
NER total (%)		GPI of GER (F/M)		Out-of-school children <sup>2</sup>	Survival rate to last grade total (%)		% of trained teachers	Pupil/teacher ratio <sup>3</sup>		
1999	2006	1999	2006	2006 (000)	1999	2005	2006	1999	2006	
East Asia										
...	94	0.97	0.99	1.1	...	98	85	14	13	Brunei Darussalam
83	90	0.87	0.93	213	49	55	98	48	50	Cambodia <sup>4</sup>
...	...	...	0.99	...	...	...	...	...	18	China
...	...	...	...	...	...	...	...	...	...	DPR Korea
...	96	...	0.96	418	...	79	...	...	20	Indonesia
100	100	1.00	1.00	16	...	...	...	21	19	Japan
76	84	0.85	0.89	125	54	62	86	31	31	Lao PDR
85	91	0.96	0.94	2.9	...	...	89	31	21	Macao, China
98	<b>100</b>	0.98	<b>1.00</b>	<b>4</b>	...	<b>99</b>	...	21	<b>17</b>	Malaysia
92	100	0.99	1.01	16	...	72	98	31	30	Myanmar
92	91	1.00	0.99	953	...	70	...	35	35	Philippines
94	<b>98</b>	0.97	<b>0.97</b>	<b>57</b>	100	<b>99</b>	...	31	<b>27</b>	Republic of Korea
...	...	...	...	...	...	...	...	27	23	Singapore
...	94	0.99	1.00	0.9	...	...	...	21	18	Thailand
...	<b>68</b>	...	<b>0.92</b>	<b>57</b>	...	...	...	...	<b>34</b>	Timor-Leste <sup>4</sup>
95	...	0.93	...	...	83	92	96	30	21	Viet Nam <sup>4</sup>
The Pacific										
94	96	1.00	1.00	63	...	...	...	18	...	Australia
85	<b>74</b>	0.95	<b>1.01</b>	<b>0.7</b>	...	...	<b>95</b>	18	<b>16</b>	Cook Islands
99	91	0.99	0.98	6	82	81	...	...	<b>28</b>	Fiji
97	...	1.01	<b>1.01</b>	...	...	<b>81</b>	...	25	<b>25</b>	Kiribati
...	<b>66</b>	0.98	<b>0.97</b>	<b>3</b>	...	...	...	15	...	Marshall Islands
...	...	...	<b>1.01</b>	...	...	...	...	...	<b>17</b>	Micronesia
...	...	...	<b>1.03</b>	...	...	...	...	...	<b>23</b>	Nauru
99	99	1.00	1.00	2	...	...	...	18	16	New Zealand
99	...	1.00	<b>0.95</b>	...	...	...	...	16	<b>12</b>	Niue
97	...	0.93	<b>0.94</b>	...	...	...	...	15	<b>13</b>	Palau
...	...	...	0.84	...	...	...	...	...	36	Papua New Guinea
92	<b>90</b>	0.98	<b>1.00</b>	<b>0.3</b>	92	...	...	24	<b>25</b>	Samoa
...	<b>62</b>	0.94	<b>0.96</b>	<b>29</b>	...	...	...	19	...	Solomon Islands
...	...	...	<b>1.35</b>	...	...	...	...	...	<b>6</b>	Tokelau
88	<b>96</b>	0.96	0.95	<b>0.2</b>	...	91	...	21	22	Tonga
...	...	1.02	0.99	...	...	...	...	19	<b>19</b>	Tuvalu
91	<b>87</b>	0.98	<b>0.97</b>	<b>4</b>	69	...	...	24	<b>20</b>	Vanuatu
Weighted average		Weighted average		Sum	Median			Weighted average		
96	93	0.99	0.99	9 535	...	...	...	22	20	East Asia and the Pacific
96	94	0.99	0.99	8 988	...	79	...	22	20	East Asia
90	84	0.97	0.97	546	...	...	...	20	19	Pacific
97	95	1.00	1.00	2 368	98	98	...	16	14	Developed countries
81	85	0.91	0.94	71 911	...	81	85	27	28	Developing countries
82	86	0.92	0.95	75 177	...	88	...	25	25	World

Data underlined are for 2003.

Data in italics are for 2004.

Data in bold italics are for 2005.

Data in bold are for 2007 or 2006 for survival rate to last grade.

1. Data are for the most recent year available during the period specified.  
2. Data reflect the actual number of children not enrolled at all, derived from the age-specific enrolment ratios of primary school age children, which measure the proportion of those who are enrolled either in primary or in secondary schools (total primary NER).

3. Based on headcounts of pupils and teachers.

4. Fast Track Initiative (FTI): countries with endorsed sector plans.

Table 2 (continued)

Country or territory	Secondary education								Tertiary education	
	GER in lower secondary				GER in upper secondary				GER	
	2006		2006		GER in total secondary				2006	
	Total (%)	GPI (F/M)	Total (%)	GPI (F/M)	1999	2006	2006	GPI (F/M)	Total (%)	GPI (F/M)
<b>East Asia</b>										
Brunei Darussalam	116	0.96	84	1.14	85	1.09	98	1.04	15	1.99
Cambodia <sup>4</sup>	54	0.84	21	0.65	17	0.53	38	0.79	5	0.50
China	98	1.00	55	1.03	62	...	76	1.01	22	0.98
DPR Korea	...	...	...	...	...	...	...	...	...	...
Indonesia	78	1.02	51	0.97	...	...	64	1.00	17	...
Japan	101	1.00	102	1.00	102	1.01	101	1.00	57	0.88
Lao PDR	52	0.80	35	0.75	33	0.69	43	0.78	9	0.68
Macao, China	115	0.96	83	1.07	76	1.08	98	1.00	57	0.81
Malaysia	<b>90</b>	<b>1.02</b>	<b>53</b>	<b>1.22</b>	65	1.07	<b>69</b>	<b>1.10</b>	<b>29</b>	<b>1.29</b>
Myanmar	56	0.99	35	1.04	36	1.01	49	1.00	...	...
Philippines	86	1.09	73	1.22	76	1.09	83	1.11	28	1.24
Republic of Korea	<b>101</b>	<b>0.91</b>	<b>93</b>	<b>0.97</b>	100	1.01	<b>98</b>	<b>0.94</b>	<b>93</b>	<b>0.65</b>
Singapore	...	...	...	...	...	...	...	...	...	...
Thailand	98	1.04	59	1.18	...	...	78	1.09	46	1.07
Timor-Leste <sup>4</sup>	<b>68</b>	<b>1.02</b>	<b>37</b>	<b>0.96</b>	...	...	<b>53</b>	<b>1.00</b>	...	...
Viet Nam <sup>4</sup>	...	...	...	...	62	0.90	...	...	...	...
<b>The Pacific</b>										
Australia	114	0.99	223	0.90	157	1.00	150	0.95	73	1.28
Cook Islands	...	...	...	...	60	1.08	<b>72</b>	<b>1.04</b>	•	•
Fiji	99	1.06	63	1.19	80	1.11	84	1.10	<b>15</b>	<b>1.20</b>
Kiribati	<b>112</b>	<b>1.06</b>	<b>65</b>	<b>1.30</b>	84	1.18	<b>88</b>	<b>1.14</b>	•	•
Marshall Islands	<b>82</b>	<b>1.01</b>	<b>59</b>	<b>1.02</b>	72	1.06	<b>66</b>	<b>1.02</b>	...	...
Micronesia	<b>100</b>	<b>0.99</b>	...	...	...	...	<b>91</b>	...	...	...
Nauru	...	...	...	...	...	...	<b>46</b>	<b>1.19</b>	•	•
New Zealand	104	1.00	141	1.11	113	1.05	120	1.05	80	1.51
Niue	...	...	...	...	98	1.10	<b>99</b>	<b>1.07</b>	•	•
Palau	<b>107</b>	...	<b>97</b>	<b>1.12</b>	101	1.07	<b>102</b>	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...
Samoa	<b>100</b>	<b>1.00</b>	<b>72</b>	<b>1.20</b>	79	1.10	<b>81</b>	<b>1.13</b>	...	...
Solomon Islands	<b>46</b>	<b>0.89</b>	<b>17</b>	<b>0.74</b>	25	0.76	<b>30</b>	<b>0.84</b>	•	•
Tokelau	...	...	...	...	...	...	<b>101</b>	<b>0.88</b>	•	•
Tonga	99	1.00	81	1.17	102	1.11	94	1.04	<b>6</b>	<b>1.68</b>
Tuvalu	...	...	...	...	...	...	...	...	•	•
Vanuatu	<b>46</b>	<b>1.04</b>	<b>31</b>	<b>0.58</b>	30	0.87	<b>40</b>	<b>0.86</b>	<b>5</b>	<b>0.59</b>
Weighted average					Weighted average				Weighted average	
East Asia and the Pacific	92	1.00	58	1.03	65	0.96	75	1.01	25	0.94
East Asia	92	1.00	57	1.03	64	0.96	75	1.01	24	0.94
Pacific	89	0.97	139	0.94	111	0.99	107	0.96	52	1.31
Developed countries	103	0.99	99	1.00	100	1.00	101	1.00	67	1.28
Developing countries	75	0.94	46	0.93	52	0.89	60	0.94	17	0.93
World	78	0.95	53	0.95	60	0.92	66	0.95	25	1.06

Sources: EFA Global Monitoring Report 2009, statistical tables; UNESCO Institute for Statistics; CRS online database (OECD-DAC, 2008).



Education finance				Country or territory
Total public expenditure on education as % of GNP		Total aid to basic education (constant 2006 US\$ millions)	Total aid to basic education per primary school-age child (constant 2006 US\$)	
1999	2006	2005–2006 annual average	2005–2006 annual average	
East Asia				
...	...	...	...	Brunei Darussalam
1.0	1.8	37	18	Cambodia <sup>4</sup>
1.9	...	71	0.7	China
...	...	0	0.1	DPR Korea
...	3.8	179	7	Indonesia
3.6	3.5	...	...	Japan
1.0	3.4	7	8	Lao PDR
3.6	...	...	...	Macao, China
6.1	6.6	2	0.7	Malaysia
0.6	...	11	3	Myanmar
...	2.3	29	2	Philippines
3.8	4.6	0	0	Republic of Korea
...	...	...	...	Singapore
5.1	4.3	3	0.5	Thailand
...	...	12	65	Timor-Leste <sup>4</sup>
...	...	85	10	Viet Nam <sup>4</sup>
The Pacific				
4.9	4.7	...	...	Australia
0.4	...	1	429	Cook Islands
5.7	6.5	2	22	Fiji
7.7	...	1	39	Kiribati
13.3	9.5	7	779	Marshall Islands
6.5	...	0	0	Micronesia
...	...	1	384	Nauru
7.2	6.1	...	...	New Zealand
...	...	1	6 137	Niue
...	...	2	959	Palau
...	...	40	42	Papua New Guinea
4.5	...	8	242	Samoa
3.3	...	11	141	Solomon Islands
...	...	1	3 763	Tokelau
6.7	4.9	7	437	Tonga
...	...	0	256	Tuvalu
6.7	10.0	4	127	Vanuatu
Median		Sum	Weighted average	
4.7	...	536	3	East Asia and the Pacific
3.6	3.6	...	...	East Asia
6.5	...	...	...	Pacific
4.9	5.3	14	19	Developed countries
4.5	4.4	3 595	6	Developing countries
4.5	4.9	4 376	8	World

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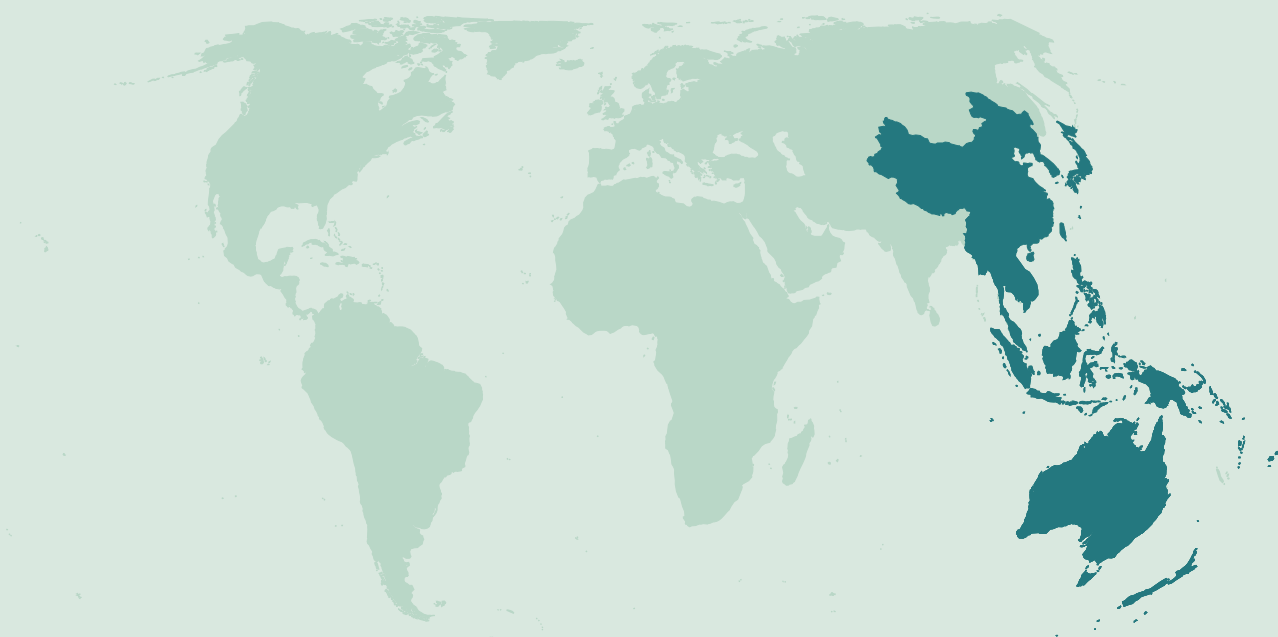
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## Regional overview: East Asia and the Pacific



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